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# RUSSIAN VERBAL NOUNS: TOWARDS A GENERATIVE-TRANSFORMATIONAL ANALYSIS

by

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Russian Verbal Nouns: Towards a Generative-Transformational Analysis submitted by Hywel Rhys Davies in partial fulfilment of the requirements for the degree of Master of Arts in Slavic Linguistics.

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ABSTRACT

This study examines Russian Verbal Nouns formed by the suffixes -enie, -anie, -nie, -tie and -ka within the framework of generative grammar. Attention is focussed on verbal nouns occurring as Subject and Object, and referring to abstract actions; verbal nouns that refer to concrete objects, and occurring in other contexts, namely adverbial constructions, (do vyrabotki standarta), as attributes of nouns (muki rasstavanija), and in periphrastic constructions (okazat' soprotivlenie) are briefly referred to, but without detailed discussion.

Significant studies of nominalisation in English within a generative-transformational framework are reviewed, notably those of Lees, Katz and Postal, Rosenbaum, Kiparsky and Kiparsky, and Menzel. Menzel's work is discussed in some detail, with emphasis on his claim that the surface form of a nominal, (i.e., whether it is a derived nominal, clausal nominal or infinitive), is predictable from whether the underlying form of the nominal is propositional or eventive. The notions of eventive and propositional sentences are discussed in some detail.

The study concludes that predicates should be specified by low-level selectional features as to which type or types of noun (clausal nominal, verbal noun, object noun) they can co-occur with.

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## Chapter One: Introduction and Data

1.0. This dissertation is concerned with nominalization in Russian. Nominalization is a process that relates a Sentence or a Verb Phrase to a Noun Phrase. For example, the Sentence:

(1) Pticy čirikajut.
'The birds are chirping.'

has the corresponding nominal:

(2) Čirikan'e ptic ...
'The chirping of the birds ...'

There is undeniably some relationship between (1) and (2); however, this relationship is not obviously one of synonymy, nor should it be taken for granted that (2) is derived from (1), in the sense that (1) underlies (2). This dissertation sets out to examine certain aspects of the relationship between (1) and (2).

Specifically, it discusses certain accounts of nominalization that have been proposed for English, and examines how one particular type of nominalization in Russian, i.e., verbal nouns, might be described within the framework of one such account. We will examine the meaning of this type of nominalization and contrast it to the meanings of other types. By meaning, we have in mind not so much the semantic definition of the word underlying the nominal, but more the question of whether the nominal refers to an action, event, and so forth, or to a proposition, fact, and so forth; we will also discuss the question of whether such distinctions are valid in terms of syntactic theory. Highly motivated validation of the claims presented in this study will not be attempted, since there will

be no detailed examination of the structures, and the rules affecting them, that would formalize the insights presented here.

The theoretical framework employed, which is discussed in Chapter Two, falls entirely within generative grammar, although we make no special commitment to any of the more specific theories that are subsumed under this label. Thus, we make no choice between generative and interpretive semantics, nor, more specifically with regard to the question of nominalization, do we prefer the lexical hypothesis to the transformational hypothesis, although these issues are not ignored. When, for the sake of convenience, it has been necessary to take a stand on points of theory, we have generally followed Chomsky (1965). Thus, we assume the notions of deep and surface structure, the lexicon, and selectional features on verbs, inter alia. We also assume the existence of a semantic component that includes semantic interpretation rules that assign a reading to an underlying structure. No attention is paid to the actual form of rules, lexical or transformational.

1.1. This section contains a brief survey of the data that are to be considered in this study. The major restriction on the data is that only so-called otglagol'nye suščestvitel'nye, (literally, nouns from verbs, also called deverbal nouns and verbal nouns), are considered; in the terminology of Švedova et al (1970: p.46), they are suščestvitel'nye, motivirovannye glagolami, 'substantives, motivated by verbs'. A further

restriction is that only two of the suffixes used to form nouns from verbs are considered, namely that which Svedova et al. label -nij-/-ij-, and that which is labelled -k(a). These we shall label -nie and -ka respectively. The label -nie covers the variants -tie, -anie, -enie and -'e, so that nouns such as rešenie 'decision', 'solution', molčanie 'silence', otkrytie 'discovery', or čirikan'e 'chirping' all come under consideration. Under the heading of suščestvitel'nye, motivirovannye glagolami, Švedova et al. (1970) distinguish two sub-types; the first includes "nouns with the meaning of 'the bearer of a processual feature'", (suščestvitel'nye so značeniem "nositel' processual'nogo priznaka"), (op cit, p.46); the second, "nouns with the meaning of an abstract action", (so značeniem otvlečennogo dejstvija), (ibid. p. 65). As will be shown later, both processes and actions are types of what, following Menzel (1969), we shall term eventive sentences, (see below, Chapter Two). One of the claims examined in this study is that a verbal noun is an eventive nominal, the result (output) of the nominalization of an underlying eventive sentence. Švedova et al (op cit) list both -nie and -ka as forming both sub-types of verbal noun. Of -nie nouns that have the meaning of an abstract action, Švedova et al note that they "oboznačajut dejstvie kak process", ('denote an an action as a process'), (ibid. p.68). Throughout this study, the term verbal noun will refer only to Russian items.

Most accounts of nominalization in English note a formal opposition between gerundive nominals and derived nominals, (see, e.g., Chomsky (1970)). Thus, (3) contains a

gerundive nominal:

(3) Torturing people is a crime.

In (3), the nominal torturing retains many features characteristic of verbs, e.g., it co-occurs only with adverbs, never with adjectives, cf.

(4) Brutally torturing people is a crime.
(5) *Brutal torturing people is a crime.

On the other hand, (6) contains a derived nominal:

(6) The torture of people is a crime.

Here, the nominal torture is more substantival in nature, i.e. it retains a few of the features that are characteristic of verbs; thus, it co-occurs with adjectives, but not with adverbs, cf.

(7) The brutal torture of people is a crime.
(8) *The brutally torture of people is a crime.

In terms of this opposition, verbal nouns are derived nominals. Thus, they co-occur with adjectives rather than with adverbs; cf.

(9) Uspešnoe rešenie problemy nelegko polučilos'.
'A successful solution of the problem was not easily arrived at.'
(10) *Uspešno rešenie problemy nelegko polučilos'.
(11) V ego soznanii v polumertvom vide ostavalas' odna mysl'.
(12) V ego polumertvom soznanii ostavalas' odna mysl'.
'One thought remained in his half-dead consciousness.'

(11) is not synonymous with (12); rather, the adverbial phrase v polumertvom vide, 'half-dead', modifies the verb ostavalas' and its subject odna mysl', rather than the nominal. Also, verbal nouns are fully specified for gender and number,

and they decline just as the majority of other nouns, which emphasises their greater similarity to derived rather than to gerundive nominals in English.

1.2. The data under consideration include verbal nouns that occur as Subject NP, Object NP and Oblique NP, (these notions are taken from Rosenbaum, (1967)). In the examples given below, the underlined words are the noun phrase containing the verbal noun.

Subject NP

(13) Pričinoj javljaetsja trebovanie smyslovoj četkosti.
'The reason is the demand for preciseness of meaning.'

(14) Texničeskoe snabženie brigady ulučšilos'.
'The technical provision of the work-crew has improved.'

(15) Cirikan'e ptic razbudilo ego.
'The birds' chirping woke him up.'

(16) Trenirovka xokkeistov načinaetsja segodnja.
'The training of the hockey players begins today.'

(13) means that either the action of demanding preciseness of meaning, the event of its having been demanded, or the fact of its being demanded is the reason. (14) means that the state of the provision of the work-crew has been improved. (15) means that the birds' activity of chirping woke him up, and (16) means that either the activity, the event, or the process of hockey training begins today. The differences and the relations between actions, events, processes, states, and facts will be discussed in more detail in Chapter Two.

Object NP

(17) Oni pomnili oscuščenie sebja v armii čast'ju celogo.
'They remembered feeling part of a whole in the army.'

(18) Molodež' stala sčitat' pobyvku v tjur'me čest'ju.
'Young people came to consider a short stay in jail an honour.'

(17) means that they remembered the action, or the state of feeling themselves part of a whole when they were in the army. (18) means that the young people considered either the event, the action, or the fact of spending a short time in jail an honour.

Oblique NP

(19) Eti slova trebujut objazatel'nogo vključenija ix v slovar'.
'These words require necessary inclusion in the dictionary.'

(20) Muž zanimaetsja pročistkoj zadymlennyx stvolov.
'The husband is occupied with cleaning the smoke-blackened tree-trunks.'

(21) On lišil sily vse dobrye namerenija Galliulina svoimi umolčanijami.
'He weakened all Galliulin's good intentions by his silences.'

(19) means that the words require the action, or the event of being included in the dictionary. (20) means that the husband is occupied with the process, or the activity of cleaning the tree-trunks. Similarily, the meaning of (21) is that he weakened Galliulin's good intentions by his actions of staying quiet.

Apart from the meanings of action, event, process, etc., verbal nouns also have "secondary" meanings. These

include the result or the end-product of an action, e.g. proizvedenie, (a work, as in "work of art"), izobretenie, (an invention). Other secondary meanings include the instrument, mechanism or installation by which an action is performed, e.g., sceplenie, (a coupling, as well as the action of coupling): cf. also the following sentence:

(22) Obrisovyvajut formu nogi dlja sapožnoj vykrojki.
'The shape of the foot is drawn around for the boot-pattern.'

where the verbal noun vykrojka refers to the pattern used in the making of the boot. Other secondary meanings are: the direct object of an action, e.g. posylka (a parcel), derived from the verb posylat', "to send", (thus posylka is 'that which is sent'); and, rarely, the location at which an action is performed, or has been performed, e.g. selenie (a settlement), promyvka (a washing-plant at a gold mine). For a more detailed discussion of these secondary meanings, see Vinogradov (1947: p.117), and Bulin (1967).

1.4. The above data are taken from contemporary Soviet prose, both technical and popular. They indicate that verbal nouns refer to actions, events, processes, states, and to objects that have been created by the performance of the action denoted by the underlying verb. The problem facing us is to test this generalisation, to see if it can in any way be captured in a grammar of Russian, and if it is indeed meaningful in terms of such a grammar. To consider the first two problems in any exhaustive, systematic manner is beyond the scope of

this thesis; the first would require extensive use of many informants, the second demands detailed consideration of a syntactic analysis of Russian. The third question can, to some extent, be answered, although answers to questions of this nature are always contingent on the kind of syntactic analysis mentioned above.

It should be pointed out that several of the Russian sentences used as examples in this study are somewhat unnatural. This is because they are taken out of context.

## Chapter Two: Theoretical Framework

2.0. The purpose of this chapter is to review the major work that has been done on nominalization within the framework of generative grammar. To this end, the contribution of Lees (1960), Katz and Postal (1964), Rosenbaum (1967), Kiparsky and Kiparsky (1971), Menzel (1969), and Chomsky (1970) will be discussed. Although the present study is hardly appropriate for a detailed and principled account of these various treatments of nominalization, nor for any real contribution to the lexicalist-transformationalist debate, we feel that such a wide-ranging review is valuable, both for its own sake, and because we feel it necessary to define nominalization carefully, especially within the wider framework of complementation, and to avoid giving an artificially narrow impression of the divergent views on the topic. Also, the data of Chapter One will be discussed in terms of the framework adopted here.

Although certain of the observations and descriptions that are discussed in the following pages may be incorrect or highly debatable, (especially some of Lees' rules characterize as ungrammatical some perfectly acceptable forms), these issues will not be debated; where appropriate, references will be made to other people's discussion of points raised. It should be borne in mind throughout that the terms nominalization and complementation refer to processes, while the terms nominal and complement refer respectively to the end-products of these processes.

2.1.1. Lees (1960) provides a typology of nominals, and rules for their derivation. His identification of the Factive, Action and Gerundive types is of particular interest to us. He derives them by means of generalized transformations where the place-holder in the matrix-sentence is an abstract noun of the class labelled $N_a$, which includes cause, fact, it, etc., (see Lees (1960: p.22)). He characterizes the differences between them in terms of their semantic interpretation, the paraphrase relations into which they enter, and restrictions as to which verbs may underlie the various nominals. Thus,

> "Any assertion, or the answer to any question may be spoken of in English in the form of an abstract fact, or statement, or as information, by means of a That-Clause, the answer by means of a Question-Word Clause." (ibid, p.59)

In (1) the underlined phrase is a Factive nominal:

(1) That he came was obvious.

His description of the Action Nominal refers to both paraphrase relations, and semantic interpretation. An Action Nominal "refers to an action, a way of doing something" (ibid. p.65). (2), where the underlined phrase is an Action Nominal,

(2) His drawing fascinated me.

is synonymous to:

(3) The way he drew fascinated me.

However, (2) is ambiguous, and can be paraphrased as:

(4) The fact that he drew fascinated me.

(see, ibid, p. 64). In cases such as (4), its paraphrase in (2) is a Gerundive, rather than an Action Nominal. The

ambiguity is illustrated more clearly in the following sentences:

(5) His drawing fascinated me, because he always did it left-handed.

(6) His drawing fascinated me, because I didn't know he could be persuaded so easily.

where (5) contains the Action Nominal, and (6) the Gerundive Nominal (ibid. pp.71 - 73), Lees distinguishes between two sub-types:

(i) "with or without the genitive subject (or subject after for) or the auxiliaries and which refer to 'facts'" (my emphasis) (ibid. p.72)

(ii) "which cannot have any expressed subject, nor any auxiliary, which refers to 'actions'" (my emphasis) (ibid. p.72).

Examples would be:

(7) His eating carrots is stupid.
(8) For him to eat carrots is stupid.
(9) Eating carrots is stupid.

where (7) and (8) are examples of the first, 'factive' sub-type, and (9) is of the second, "'action' sub-type.

Lees notes several "formal distinctions" between the Action and Gerundive Nominals, which are those noted as the differences between Gerundive and Derived Nominals by Chomsky (1970), (cf. above, 1.1.); see Lees (1960: p.65).

Lees differentiates between the Factive, Action and Gerundive nominals by using an unwieldy sub-categorization of verbs, and providing different structural indices for the various rules that generate them; (see, ibid. p.61; pp.67 - 68; p.72). This type of description has since been substantially modified (see Chomsky, 1965), and will not be discussed here.

To sum up, Lees observes a basic semantic opposition among nominals of Factive versus Action, and a basic formal opposition of Action (Derived) Nominals, Gerundive Nominals, and That - Clauses or Clausal Nominals. As was noted in Chapter One, verbal nouns are derived nominals, and it is consequently this type that is of greatest interest to us; therefore, little attention will be paid to Gerundive nominals or Clausal Nominals in the following pages. In order to avoid confusion, we will use the term Derived Nominal henceforth to refer to those nominals that are structurally equivalent to Noun Phrases; the term Action Nominal will refer to English derived nominals formed with the suffix ing and the preposition of.

2.1.2. While the issue in our account of Lees (1960) was the meaning of derived nominals, the discussion of nominalization given in Katz and Postal (1964) is of interest for its proposed derivation of derived nominals. Katz and Postal (1964: pp. 122 - 144) discuss Action and Gerundive nominals; they claim that the Gerundive Nominal is Factive (ibid. pp. 122 - 123).

In their analysis of the Action Nominal, Katz and Postal point out that the verbs that underlie the Action Nominal are those that co-occur with Manner Adverbials. Furthermore they show that the Action Nominal is "systematically ambiguous for a wide range of cases" (ibid. p.124). Cf.

(10) John's bluff was hurried and ineffective.

(11) John's bluff was called.

(11) contains the "object" sense of bluff, while in (10) it is what Katz and Postal refer to as the "manner" sense that is meant. Thus, the Action Nominal bluff "refers not only to the way in which John bluffs but also to the abstract object which results." (ibid., p. 124; see also Lees, 1960, p.64).

Katz and Postal provide a greatly detailed analysis of the manner sense of the Action Nominal, (Katz and Postal, 1964: pp. 125 - 141), which they claim to be highly justified and to have strong independent motivation. Briefly, a derived nominal such as:

(12) John's driving ...

is described as a "reduced version of an underlying nominal containing an occurrence of ... way" (ibid. p.143), viz.

(13) The way in which John drives ...;

in its turn, (13) is derived from an embedded relative clause, namely:

(14) John drives in that way.

which is embedded on a higher occurrence of the head-noun (or placeholder) "way"; thus, the underlying structure of (15):

(15) John's driving scares me.

would be roughly:

(16) The way (John drives in that way) scares me.

Thus, Katz and Postal claim that Action Nominals are derived from underlying sentences that contain an Adverbial constituent, either way or manner, and that they are embedded on a higher

occurrence of the same constitutent just as any Relative Clause.

Katz and Postal propose to treat Gerundive nominals such as:

(17) John's flying the plane (disturbs me.)

as reduced versions of strings containing the fact that + Sentence, without making any claims about how this reduction is carried out. In a footnote, they make the qualifications, following a suggestion of Chomsky's, that the reduction is not from strings containing the fact that, but that:

"the Noun which is deleted is the pro-form of the Noun sub-category to which fact and many other similar nouns, like idea, reason etc., belong. This pro-form is probably it, which is dropped in front of that + S sequences." (Katz and Postal, 1964: pp. 155 - 156, n.54)

This proposal is adopted by Rosenbaum (1967) in his study of Noun Phrase Complementation. NP Complementation is defined in the following way by Fowler (1971):

"NP Complementation ... is a process by which a S is attached to an NP in the matrix, not substituted for it. The NP to which a nominalized S is attached must be it, or one of a small set of formulaic NP's such as the idea, the fact, the claim, the way, etc. Unlike the NP's to which relative clauses are attached ... these are semantically empty and may readily be deleted." (Fowler, 1971: p.134)

This "formulaic NP" is equivalent to Lees' place-holder and Katz and Postal's deleted head noun.

2.1.3. In the account of NP Complementation given in Rosenbaum (1967) and Robin Lakoff (1968), the sentence that underlies the nominal is embedded on it: a Transformational Rule introduces the complementizer, (i.e., the That of the

That-clause, to of the infinitive, or the ing of the Action Nominal, which Rosenbaum calls POSS ING); the complementizers have no meaning of their own, and their selection is governed by the verb in the main sentence; (see Rosenbaum, 1967: pp. 24 - 32; it should be pointed out that he is not as unequivocal on these points as I perhaps make him out to be.) In a footnote, Robin Lakoff modifies her claim that the complementizer has no meaning; "there is clearly some relationship between the complementizer chosen and the semantics of the sentence." (Robin Lakoff, 1968: p.72, n.16).

Robin Lakoff's statement is typical of a general realization that complementizers are in fact semantically meaningful. (Cf. Bolinger (1968), Kiparsky and Kiparsky (1971), Bresnan (1970)). Kiparsky and Kiparsky (1971) claim that a basic opposition in terms of the factivity or non-factivity of the sentence underlying the complement conditions the choice of complement type. Parallel to the Kiparskys, though independently, Bolinger (1968) comes to similar conclusions, although he uses different terminology. He claims that:

> "the complementizers are chosen for their own sake, not as a mechanical result of choosing something else (i.e. the main verb, in Robin Lakoff's scheme RD)" (Bollinger, 1968: p.122)

He uses the complementizers FOR TO (the infinitive complementizer) and POSS ING to demonstrate his claim. He considers the sentences:

(18) I like him to be nice to you.

(19) I like his being nice to you.

and states:

"Speakers asked which one of these would be used where one expresses the wish that someone will be nice unhesitatingly pick (18), but (19) if it is suggested that someone's actual behaviour is referred to." (ibid. p. 123)

Bolinger characterizes the difference in meaning between the complements as one between reification (19), and hypothesis or potentiality (18). This corresponds to the Kiparskys' contrast of factive and non-factive. Thus, the complement in (19) is a fact; the proposition "he is nice to you" is presupposed to be true by the speaker and thus "reified". In (18), however, there is no such presupposition, and the complement is a non-fact, hypothetical or potential. The Kiparskys claim that this semantic contrast is mirrored by an underlying syntactic contrast, namely that non-factive complements have the deep-structure domination relation $_{NP}$ S, while factive complements have the configuration $_{NP}$ FACT S.

In effect, the Kiparskys and Bolinger restore a measure of semantic meaning to the head noun (or formulaic NP) in the deep structure, which Rosenbaum had specified as $\begin{bmatrix}+N\\+PRO\end{bmatrix}$ lexically realized as it. Menzel (1969) accepts the Kiparskys' approach, but assumes that:

"a number of other semantic factors ... determine the syntax of complementation and nominalization." (Menzel, 1969: p.25)

It is to Menzel's work that we now turn our attention.

2.2.1. Following philosophers of language such as J. L. Austin and Z. Vendler, Menzel begins his discussion of

the "other semantic factors" by stating that simplex sentences can have two simultaneous functions: they can express propositions, commands, etc., and describe events, actions, processes, etc. Thus, the sentence:

(20) John ate the meat.

both expresses the proposition that John ate the meat, and describes the event whereby John ate the meat. Menzel provides the following definitions of the notions of fact, event, action, etc. It must be remembered that his definitions are made in terms of linguistic theory, not in terms of any psychological or philosophical analysis, and they refer solely to grammatical objects, not to any general conceptual notions.

Since any proposition can be true or false, a fact is a proposition that is presupposed to be true by a speaker. Consider the following sentences:

(21) I suppose that John ate the meat.

(22) I regret that John ate the meat.

In (21), the proposition "John ate the meat" is not presupposed to be true by the speaker of the sentence; rather, it is asserted as being probably true. In (22) however, the truth of the proposition is already taken for granted (presupposed to be true), and an assertion, (in this case, of regret) is made about the fact that John ate the meat. (See Menzel, op cit, pp. 28 - 35; Kiparsky and Kiparsky, 1971: pp. 348 - 349).

In defining event, Menzel follows Vendler (1967) in stating that the most crucial test frame for event is of the

form:

(23) X occurred at one o'clock.

where the variable X covers a derived or gerundive nominal, e.g., in (24):

(24) John's eating of the meat occurred at one o'clock.

where the event of the eating of the meat is fixed in time. To define process, Menzel, following a suggestion of Lewis, points out that:

"the difference between events and processes is not a categorial one between point in time and duration of time, but ... one of balance between unit of time and duration." (Menzel, 1969: p.43)

That is, an event occurs at a point in time, or is of a duration shorter than that of the unit of time in the predicate (i.e. a TIME adverbial), whereas a process lasts a certain time, or is longer in duration than the unit of time in the predicate. Also, events often indicate, or emphasize the beginning of an event, without necessarily saying anything about its duration, or presupposing its termination.

"The difference ... is that the underlying verbs of those (nominals RD) that can occur across the copula from event (i.e. are events RD) are achievement verbs, while those that cannot occur there are not." (ibid. p.45)

In his discussion of action, Menzel notes that in contrast to events, actions usually involve willing agents. Thus,

(25) Bill hit the boy.

where Bill is a volitional agent, is an action, while

(26) Fred failed the exam.

where Fred had little control over events, and was presumably not a volitional agent, is an event, (see ibid. p.47). Menzel points out that the distinction between the two subjects here, Bill and Fred, is the same as between Fillmorean Agent and Dative respectively (see ibid. p.48 and Fillmore (1968)). Thus, he defines an action this way"

> "An action is performed by an agent. If we agree to have the term agent entail volition." (ibid. p.51)

An act, (here again Menzel follows Vendler):

> "is an action which the speaker either
> (a) disapproves of strongly (in a legal or moral sense):
> or (b) admires greatly." (ibid. p.51)

Finally, Menzel discusses state and property.

> "... properties are seen as in some sense being part of the (not grammatical) object in question, while states are not so viewed. In addition, states appear to be of a short, or at least uncertain duration, while properties, since they are viewed as part of the object in question, are always associated with that object. That is, properties are not considered from a temporal viewpoint, but rather are viewed almost like inalienable possessions, while states are always considered to be more or less temporary, and never as being part of the object at all." (ibid. pp. 51-52)

He provides the following definitions:

> "Properties are possessed by objects.
> States can be associated with objects. In this case,
> (a) objects are in states.
> Where states are not associated with an object, they are like conditions, hence
> (b) states prevail." (ibid. p.56)

2.2.2. The fundamental point of Menzel's thesis is the following claim:

> "It is ... only as nominalizations and complements that we can say that a certain clause is a fact, or an event, or an action, etc., while the simplex underlying that clause

can only be said to express a proposition and describe an event. Moreover, while a simplex can at the same time e.g. express a proposition and describe an event, the appropriate nominalizations of that simplex can only be one of these; i.e., either a proposition or an event, but not both. This means that it is only after nominalization that clauses become unambiguously propositions, facts, events, actions, states and processes. Before nominalization, simplexes are not unambiguous in this respect, but are cross-classified." (ibid. p.40)

Menzel claims that the surface form of the nominal, i.e., whether it is a clausal nominal, a derived nominal, or an infinitive, is predictable from the type of the embedded sentence that underlies the nominal, the typology being constructed in terms of the definitions discussed above.

"embedded propositions have the surface form of a that clause while embedded events have the surface form of a gerund, and embedded actions, states or processes have the surface form of subjectless gerundive infinitives." (ibid. pp. 196 - 197)

In the above statement, the term gerund includes the derived nominal. The sentences are embedded on deletable head nouns, of which there are three main types, namely: Propositional (including the head nouns proposition, fact, idea, notion, position), Eventive, (including event, process, action, act, activity), and Stative, (including state, property) (see ibid. p. 66; pp. 116 - 118).

The formalism that Menzel employs to account for why "certain matrix verbs demand that their complements have certain surface forms" (ibid. p.72) is to subcategorize the matrix verbs in terms of the sentence type that they co-occur with. Thus, verbs will have selectional features of the type $[+___\text{PROP}]$ , $[+___\text{EVENT}]$ (see ibid. p.73). Menzel proposes that rules of semantic interpretation will serve to

block unacceptable sentences, and that rule features on verbs and head nouns will be required to predict the surface forms of the complements taken by verbs that co-occur with more than one type, (for discussion of these points, see ibid. pp. 67 - 76).

Of these head nouns, Menzel further states that:

"verbs allowing propostions also take the noun proposition, ... factives take the noun fact ... verbs taking gerundive clauses take the nouns event or process, while verbs whose complement has undergone the rule of EQUI NP DEL take the nouns state, action, or process" (ibid. p.77)

According to Menzel, these propositional head nouns "exhibit the same syntactic and semantic properties as were adduced by the Kiparskys for fact"(see ibid. p.59). All verbs that co-occur with that-clauses also co-occur with a deletable head noun from this class, except for some verbs of belief and assertion, (i.e., non-factive predicates).

Whereas that-clauses are embedded sentences of the propositional type, most gerundive and derived nominals are from underlying sentences of the eventive or stative type. Menzel claims that:

"all gerundives and derived nominals describing events have the head nount event ... The claim that all gerundives and derived nominals have head nouns in the deep structure also means that those ... which do not have the head noun event must have another head noun, such as process, state, or property." (ibid., p. 118)

The verbs that underlie eventive nominals are nonstative, or action verbs, (see ibid. pp. 115 - 116); also, eventive nominals can function as subject, object, or oblique object (see ibid. p. 116)

2.2.3. Menzel notes the situation whereby events and actions can be viewed as facts. This, he claims, is because:

> "as soon as an action has been performed, its performance becomes a fact and can therefore be presupposed to be true by the speaker who witnesses it. In a similar manner, as soon as an event has occurred, its occurrence becomes a fact, and can be presupposed to be true by the speaker." (ibid. p. 69)

Factive verbs, (i.e. verbs that presuppose the truth of any proposition embedded on them), can therefore co-occur with derived or gerundive nominals, as well as with clausal nominals. This seems to contradict Menzel's claim that nominalization disambiguates simplex sentences. Indeed, one of the syntactic justifications for the Factive/Non-Factive opposition postulated by the Kiparskys is that only factive predicates allow "the full range of gerundial constructions", (Kiparsky and Kiparsky, 1970: p.144). Cf.

(27) His being found guilty is significant.

(28) That he was found guilty is significant.

What seems to be implicit in Menzel's statement is that (27) can be interpreted as meaning that the event of his being found guilty is significant, but that it can also receive a factive interpretation, as a fait accompli, since significant is a factive predicate; however, (28) can receive only a factive interpretation. When the complement is viewed as a fact, it may take the form either of a THAT-clause, or of a gerundive or derived nominal. (see Menzel, op cit, p. 115; pp. 125 - 128). It is this situation that led us to make the reservation that most gerundive and derived nominals describe eventive

complements. It will be remembered that both Lees and Katz and Postal observed this opposition of Factive to Eventive in their discussion of the ing type of English derived nominal. We return to this question below.

Another matter raised by Menzel is the question of the "manner" interpretation of such nominals as

(29) John's driving of the car

proposed by Katz and Postal (cf. above, 2.1. 2.):

> "it seems clear that what has been called the manner interpretation of gerundives is in reality their event interpretation, in the sense that a gerundive can only have a manner interpretation because it is an event. This seems to mean that the actual ambiguity between factive and manner is one between factive and eventive interpretations. What seems to have happened is that, because the eventive interpretation emerges most clearly when a manner adverbial is added to the gerundive, this fact was mistakenly assumed to be due to a separate type of nominalization." (see Menzel, op cit, pp. 128 - 130)

To summarize, Menzel enriches and enlarges upon the insight of the Kiparskys and of Bolinger by demonstrating that the various complement types (typified by the kind of complementizer they use, be it THAT, FOR TO, or POSS ING) correspond to various sentence types that have been identified by philosophers of language. In a nutshell, embedded propositionals take THAT, while embedded eventives and statives take POSS ING, and in certain restricted cases, involving obligatory head-noun deletion, FOR TO. Certain processes, such as the reification, (making into facts, see McCawley, 1968: pp. 130 - 132 for some discussion of this notion) of events and actions confuse the picture somewhat, but it seems reasonable to claim that regularities can be observed

and generalisations captured.

2.2.4. Recall that Lees observed a basic semantic opposition between factive and action nominals. It was seen that Katz and Postal correlated this semantic opposition to the formal one of derived versus gerundive nominals. Menzel's work rejects Katz and Postal's analysis; he notes the semantic contrast, although using different terminology, namely propositional versus eventive. He also claims that when a derived or gerundive nominal receives a factive interpretation, this is as a result of the reification process noted above. Thus, the eventive member of the propositional - eventive opposition is the base for both derived and gerundive nominals.

2.3.1. At this point, it seems appropriate and useful to draw some kind of distinction between the processes of nominalization and complementation. The latter term is encountered first of all in Rosenbaum (1967) and Robin Lakoff (1968): Lees (1960) and Katz and Postal (1964) talk only of nominalization. Rosenbaum (1967) does not provide an explicit definition of complementation; Robin Lakoff however, provides a good working definition. She states that complementation is one of the three recursive processes of language (a recursive process "enables sentences to be formed inside other sentences") (Robin Lakoff, 1968: p.13); the other two are conjunction and relativization, (see ibid. p.13). She distinguishes between complements and relative clauses; although both are embedded sentences, their functions differ, both syntactically

and semantically (see ibid. p.14). The difference is that, in the deep structure:

> "the noun phrase, which in a relative sentence dominates itself, does not do so in a complement, in which the noun phrase dominates a noun, always abstract, and a sentence." (ibid. p.16)

This 'always abstract noun' is, in fact, the formulaic NP it, discussed above, which, as we have seen, is reinvested with a wide range of meaning by the Kiparskys, Bolinger, and Menzel, inter alia. On the function of complements, Robin Lakoff states:

> "Embedded complement sentences function as noun phrases in sentences, either as subjects or direct objects of verbs." (ibid. p.15)

Lyons (1969: p.345) defines the term complement thus:

> "In traditional grammar, the term is used to refer to any word or phrase (other than the verb itself) which is an obligatory constituent of the predicate: for instance, the object of a transitive verb ... The predicate complement is syntactically required, in order to 'complete' the structure of the predicate (hence the term 'complement'"). More particularly, the term 'complement' is used of such 'adverbial' expressions as in Central Park, or on Sunday in sentences like The parade was in Central Park or the demonstration was on Sunday."

By incorporating some of Fillmore's insights concerning sentence structure (i.e., that the notions of 'subject' and 'object' are not primitive notions of the grammar, but transformationally derived (see Fillmore, 1968), it is possible to modify Lyons' definition to include the subject of the sentence as one of the complements of the sentence. Thus, the various arguments of the predicate could all be said to complement it (although here we court the obvious risk of broadening the definition of complement so much as to

reduce it to vacuity). Moreover, complements can also be optional constituents of the predicate, which Lyons terms adjuncts. (see Lyons, op cit, pp. 344 - 349). Thus, whereas in the sentence:

(30) Shooting your mouth off causes problems.

the nominal shooting your mouth off is a complement, because:

(31) *Causes problems.

is an incomplete, unacceptable sentence (unless it is rendered acceptable by context), in the sentence:

(32) He killed his wife by dissolving her in sulphuric acid.

the nominal dissolving her in sulphuric acid is an adjunct, since:

(33) He killed his wife.

is a complete, acceptable sentence. Cf. Chomsky, 1965, p. 224, n.8, where the possibility of defining the term "complement" "... as a functional notion (to be more precise, as a cover term for several functional notions)" is suggested.

In non-technical terms, nominalization can be defined as the process whereby a Verb Phrase or a Sentence becomes a Noun Phrase, in order that something can be predicated of it. Thus, when the POSS ING complementizer is introduced, this feature serves as a trigger for a nominalization transformation, (or set of transformations) that changes the embedded complement sentence into a gerundive or derived nominal (containing ing). (This account assumes a Transformational account of nominalization, simply for

convenience; no empirical claim is implied). However, not all complements are derived nominals; when THAT is the complementizer, the complement is a THAT-clause, or clausal nominal, and when FOR TO is the complementizer, the complement is an Infinitive.

2.3.2. The Lexicalist-Transformationalist debate concerns the question of whether the process of nominalization should be described in the lexicon, or in the transformational component. Chomsky (1970) notes three main differences between the gerundive and derived nominals (his observations are based only on English), namely, in:

> "the productivity of the process in question, the generality of the relation between the nominal and the associated proposition, and the internal structure of the nominal phrase." (Chomsky, 1970: p.187)

By productivity, Chomsky is referring to the fact that there are quite severe constraints on the type of base verbs, (if verbs they be), that can underlie derived nominals, while there are relatively few on the verbs that can underlie gerundive nominals. The point about the generality of the relation between the nominal and the base form refers to the fact that many nominals appear not to preserve the meaning of the propositions that presumably would be postulated as underlying them - cf. for instance, the semantic relationship between the derived nominal revolution and its verbal parallel revolve; what would be the deep structure of The Great October Socialist Revolution? According to Chomsky, to view the syntactic relationship of these two words as transformational

would require the abandonment of the semantic invariance constraint on Transformations (see ibid. p.189). The point about the internal structure is the difference noted above, that the gerundive nominal is, by all appearances, a Verb Phrase, while the derived nominal is a Noun Phrase.

We cannot go into the details of Chomsky's argumentation here, and shall simply state his conclusions. He concludes that derived nominals correspond not to transforms, but to base forms. The relationship between derived nominals and their corresponding verbal forms is not ignored, however. What Chomsky proposes is that:

> "a great many items appear in the lexicon with fixed selectional and strict subcategorization features, but with a choice as to the features associated with the lexical categories noun, verb, adjective. The lexical entry may specify that semantic features are in part dependent on the choice of one or another of these categorial features." (ibid. p.190)

This entails that the category (i.e. Noun, Verb, Adjective) of the lexical item underlying the derived nominal is determined by the label of the node that directly dominates it; thus, in the sentence:

(34) Several of John's proofs of the theorem fell flat.

the derived nominal <u>proof</u> is dominated by N, and therefore the deep structure lexical item <u>prove</u> (Chomsky's spelling) would take from the lexicon, as well as the fixed selectional and strict subcategorization features, those semantic and syntactic features associated with it just in case it occurs as a noun; however, in

(35) John proved the theorem.

prove is dominated by V, and therefore takes those features that accompany its occurrence as a verb. Exactly what the lexical specification of such items would be (i.e. [+N], [+V] ..., or simply [-ADJ] is unclear. According to Chomsky, the three problems inherent in the description of derived nominals would be solved be generating them in the base. The eccentricities of productivity would be accounted for by statements for each individual lexical item, or class, (by redundancy rules), instead of complicating the transformational component with statements of exceptions to rules. The problem of the apparently unsystematic differences in meaning between derived nominals and related verbs would be handled by the specification in the lexical entry that the meaning depends to some extent on which category dominates the item. The fact that derived nominals would be nouns to begin with explains why they behave like nouns with respect to modifiers.

It cannot be argued that Chomsky is missing the generalisation that the derived nominal and its complements are similar to sentences. He indeed points out:

> "The strongest and most interesting conclusion that follows from the lexicalsit hypothesis is that derived nominals should have the form of base sentences, whereas gerundive nominals may in general have the form of transforms." (ibid. p.122)

He also claims that:

> "by a suitable generalisation of the interpretation of selectional features, we can account for the fact that the selectional relation of the possessive noun phrase of the determiner to the verbal head of the derived nominal is the same as that of the subject to the verb of the associated verb phrase." (ibid. p.201)

Newmeyer (1971) and Bowers (1969) object to Chomsky's proposals on the grounds that they court the danger of reducing the role of transformations to insignificance. Bowers (1969) claims that derived nominals can in fact be systematically and economically generated by transformational rules. He concludes that there is:

> "a general principle at work whereby factive abstract nouns are derived from the appositive S' (S' is any embedded sentence RD) node of the NP expansion whereas all other senses depend on the restrictive clause extension of an N which has specific attributes of countability, or may be realized into distinct sets of noun pro-forms." (Bowers, 1969: p. 531)

In effect, Bowers proposes that an extended version of the framework proposed by Menzel (1969) should be used. This framework would include N's (which are roughly equivalent to Menzel's head nouns) that could be lexically realized as quality, attribute and so on. (see Bowers, op cit, op. 523 - 524). This extension would systematize the semantic idiosyncracies noted by Chomsky. Bowers analyses the embedding process as a form of relativization, rather then complementation. Such a framework is mentioned by Chomsky, and dismissed on the grounds that "the scope of the existing subregularities ... has been considerably exaggerated in work that takes the transformationalist position." (Chomsky, p.217, n.11).

Newmeyer (1971) claims that careful rule-ordering obviates the productivity problem (see Newmeyer, 1971: pp. 787 - 791). Fraser (1970) claims that action nominalization must be transformational, since it must occur after certain processes which are generally believed to be transformational,

such as adverbial reduction (e.g. in a clever way ⇒ cleverly) and adjective preposing (see Fraser, 1970: pp. 93 - 98) Fraser (op cit) and Newmeyer (1970) base their arguments against the lexicalist hypothesis on proposals concerning a type of nominal that Chomsky explicitly excludes from the class of derived nominals, namely the ing of type, of which he says:

> "there is an artificiality to the whole construction that makes it quite resistant to systematic investigation." (Chomsky, 1970: p.214)

Chomsky's derived nominal is the nominal characterized by the plethora of suffixes labelled NML by Lees, which is ignored by both Fraser (1970) and Newmeyer (1970).

2.4. The major theoretical issue that emerges from this review of the literature is the Lexicalist - Transformationalist debate. It is the major issue in the sense that its resolution depends on the resolution both of issues that are more germane to the problem of nominalization, and of other questions not directly related to nominalization. It raises questions about the organization of a grammar that are quite beyond the scope of this study. The issues that are more germane to the problems of nominalization include the question of the semantic relation between the nominal and its corresponding verb phrase or sentence, and the question of what the deep structure of derived nominals is. The answer to the second question is dependent to a large extent on the answer to the first, insofar as if the meaning of the derived nominal

does correspond in any systematic way to the meaning of the cognate verb phrase or sentence, then this relation should be captured in the grammar.

## Chapter Three: Analysis of the Data

3.0. In the preceding chapter we reviewed various treatments of nominalization within a generative-transformational framework, focussing on the model proposed in Menzel (1969). In this chapter, the data presented in Chapter One will be examined in terms of Menzel's analysis.

Before proceeding with this analysis, it is important to recall the distinction between rules and metarules, (see, e.g., Lakoff (1970)). Rules are language-specific, i.e. they apply to individual languages of groups of languages, while metarules are language-independent, i.e., they apply to all languages. Although this study is not concerned in any detail with the actual process by which verbal nouns are derived,[1] but rather with indicating some facts that are possibly significant in a description of this process, the distinction between language-specific and language-dependent is important. The point for this study is that, while it is not unreasonable to postulate that verbal nouns, (derived nominals), are derived from embedded eventive sentences according to a metatheoretical constraint on nominalization, this does not necessarily entail that the derivation of derived nominals in English proposed by Menzel (op cit) corresponds in every detail

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[1] See Comrie (1969: pp. 29 - 78) where, on the basis of an extensive discussion of the relations between the structure of Noun Phrases containing derived nominals and the structure of their corresponding sentences, especially with regard to adjuncts, and verbal categories such as aspect and negation, the Lexicalist hypothesis is affirmed. Zimmerman (1972) derives verbal nouns and clausal nominals from a common, semantic deep structure.

to the derivation of verbal nouns in Russian, nor that Russian draws exactly the same semantic distinctions between actions, events and processes as English.

There will be no discussion of the notions of Action, Event, Process, State etc.; (see above, p.16 ). In the following discussion all these notions will be subsumed under the term event.

## 3.1. The Basic Hypothesis

Menzel (op cit) proposes the following theory of nominalization. Any non-embedded simplex sentence can, simultaneously, express a proposition and describe an event; thus, (1):

(1) Pticy čirikajut.
'The birds are chirping.'

both expresses the proposition that the birds are chirping (or that birds chirp), and describes the event, (or, depending on context, the action or activity) of the birds' chirping. Upon nominalization, only one of these functions remains, so that a nominal refers to a proposition, or an event, but not both. For example, (1) can become a verbal noun, viz.

(2) Čirikan'e ptic razbudilo ego.
'The birds' chirping woke him up.'

where it is the action of the birds' chirping that the nominal refers to; it can also be embedded as a clausal nominal, viz.

(3) On dumaet, čto pticy čirikajut.
'He thinks that birds chirp.

where the nominal refers to the proposition that birds chirp.

Menzel (op cit) claims that the surface form of the nominal is predictable from whether the underlying form is propositional or eventive; accordingly, a nominalized propositional sentence will have the surface form of a clausal nominal, while a nominalized eventive sentence will have the surface form of a derived or gerundive nominal. Which of the underlying sentence's two functions is read by the semantic interpretation rules is determined by the type of predicate in the matrix sentence, more precisely, by a selectional feature in the lexical specification of the verb. Therefore, in the sentence

(2) Čirikan'e ptic razbudilo ego.
'The chirping of the birds woke him up.'

the verb razbudilo has the selectional feature /¯+ /¯+EVENT_7__ /¯+ANIM_7_7, (here we follow Chomsky's (1965: pp. 118 - 120) convention for stating selectional features, ignoring the question of whether such features are properly viewed as syntactic or semantic).

## 3.2. Some Weaknesses in the Basic Hypothesis

Let us now consider this analysis as it applies to verbal nouns occurring as Subject and Object. We have adopted the definitions of Subject and Object provided by Chomsky (1965: pp. 68 - 74; passim). Consider the following sentences:

(4) Mne nravitsja čtenie gazet.
'The reading of newspapers pleases me.'

(5) Mne nravitsja čitat' gazety.
'To read newspapers pleases me.'

(6) To, čto ja čitaju gazety mne nravitsja.
'That I read newspapers pleases me.'

(4) contains the verbal noun čtenie gazet, (5) the infinitival clause čitat' gazety, and (6) the clausal nominal to, čto ja čitaju gazety. Both (4) and (5) can be readily interpreted as referring to the activity of reading newspapers, and can co-occur with predicates containing the noun dejatel'nost' (activity):

(7) Čtenie gazet - poleznaja dejatel'nost'.
'The reading of newspapers is a useful activity.'

(8) Čitat' gazety - poleznaja dejatel'nost'.
'To read newspapers is a useful activity.'

In (6), to corresponds to it in the it+S construction of English, (although it must be deleted if the clausal nominal is extraposed).

In order to test Menzel's hypothesis that clausal nominals refer only to propositional sentences, we need to determine whether to can refer to deleted nouns such as dejatel'nost', (activity), sobytie, (event), process (process). If we do establish that to can in fact co-occur with predicates such as dejatel'nost' and so forth, this will considerably weaken Menzel's argument that formal differences between nominals can be correlated to whether the sentences underlying the nominals express propositions or describe events. It will indicate that clausal nominals can describe events, activities etc., as well as express propositions, and thus suggest that the distinction is meaningless for a description of the process of nominalization.

Švedova et al (1970: p.691) state that to,

"as a consequence of its semantic emptiness and grammatical indeterminacy ... can be the locus of the entire meaning of the complement and introduce this meaning as a single semantic unit into the matrix sentence." (My translation)

Švedova et al (ibid. p.693) discusses the various nouns that can replace to in the surface structure; these include tot fakt, (the fact), to obstojatel'stvo, (the circumstance), as well as several

"nouns of relational meaning (reljativnogo značenija), that denote the type of relation by which the complement is linked to the matrix sentence: basis, pretext, reason, difference, condition, purpose..."

These nouns differ from fakt, obstojatel'stvo, in that they appear in prepositional phrases, such as po toj pričine čto ("for the reason that" i.e. because), or na tom osnavanii, čto, (on the basis (grounds) that). However, they are all factive, in that they presuppose the truth of the proposition embedded on them. Švedova et al do not consider whether to refers to dejatel'nost' etc.

Consider the following sentences:

(9) To, čto ja čitaju gazety - poleznaja dejatel'nost'.
'It, that I read newspapers is a useful activity.

(10) Ta dejatel'nost', čto ja čitaju gazety - polezna.
'The activity that I read newspapers is useful.

(11) Moja dejatel'nost' čtenija gazet - polezna.
'My activity of reading newspapers is useful.'

Informant responses to the acceptability and synonymy of these sentences were varied. (9) was considered acceptable by two, and possibly acceptable by the other two; the other sentences

were all considered less acceptable, (10) evoking all four possible responses - acceptable, possibly acceptable, probably acceptable and unacceptable, while (11) was considered acceptable by one, possibly acceptable by two, and probably unacceptable by the fourth.

Three of the four agreed that (9) and (11) are synonymous to:

(12) Moe čtenie gazet - poleznaja dejatel'nost'.
'My reading of newspapers is a useful activity.'

The above data indicate that Clausal Nominals in Russian do refer to actions, events, etc. It is interesting to note that similar responses were found in a test using English, so that:

(13) It is a useful activity that I read newspapers.

is considered acceptable, though somewhat anomalous. This evidence casts doubt on Menzel's claim that the choice of complementizer depends on whether the sentence underlying the nominal is propositional or eventive, and consequently vitiates his argument considerably.

His argument claims that derived nominals have as their base sentences that describe actions, events, processes and so forth. The observation that verbal nouns, which we include in the class of derived nominals, describe, or refer to actions is hardly original; the very fact that they are often called imena dejstvija ( nouns of action; nomina actionis) demonstrates this. What we have to show is that it is interesting from a theoretical point of view, i.e. that it enables us to describe verbal nouns in an insightful and

economical way. We claimed earlier that there are predicates that require an eventive nominal as (at least) one of their arguments, and that this information would be represented in the grammar by a selectional feature of the form /[+ /[+EVENT_]_] (see above, p.35 ). However, the example discussed above, razbudit', has few restrictions on the nominals that can occur as its subject; thus, all of the following sentences are perfectly acceptable:

(14) Devjataja simfonija Betxovena razbudila ego.
'Beethoven's ninth symphony woke him up.'

(15) Maša razbudila ego.
'Masha woke him up.'

(16) Groza razbudila ego.
'The storm woke him up.'

(17) Mašina razbudila ego.
'The car woke him up.'

(18) Duxota razbudila ego.
'The stuffiness of the air woke him up.'

One might conclude from evidence such as this and of (9) - (11) that the notion of an eventive nominal is theoretically meaningless, that the fact that such nominals do refer to events, actions, etc. plays no role in the grammatical description of nominalization.

## 3.3. Supporting Arguments

Vendler (1967: p.143) distinguishes three basic types of Noun Phrase: propositional nominals (which he terms imperfect nominals), eventive nominals, (perfect nominals), and object-nouns. Both types of nominal are derived from

sentence-like structures, while the derivation of object-nouns is not discussed. It seems reasonable to classify predicates in terms of which type or types of Noun Phrase can occur as their arguments. Thus, we see that razbudit' can take eventive nominals and object-nouns as arguments; in (15) and (17) we see definite examples of object-nouns occurring in subject-position; (14), although the superficial subject is an object-noun, contains a "suppressed nominal", (Vendler's term), namely ispolnenie, (performance). Groza and duxota are both eventive nominals with different complementizers than the ones under consideration here; groza describes an event, while duxota describes a state.

In order to answer the question posed above, namely, does the distinction of an eventive parameter in any meaningful way add to the grammar, we need to find a class of predicates that co-occur only with eventive nominals. Such a class exists, containing predicates such as sostojat'sja (occur), imet'mesto (take place), načat'sja (begin). (19) and (20) are both unacceptable sentences:

(19) *Maša načnetsja čerez čas.
'Masha will begin in an hour.

(20) *Mašina načnetsja čerez čas.
'The car will begin in an hour.'

while (21) is acceptable:

(21) Čirikan'e ptic načnetsja čerez čas.
'The chirping of the birds

Note, furthermore, the contrast between:

(22) ?Devjataja simfonija sostoitsja čerez čas.
'The ninth symphony will occur in an hour.'

and

(23) Ispolnenie devjatoj simfonii sostoitsja čerez čas.
'A performance of the ninth symphony will occur in an hour.'

Many other verbal nouns occur in this context, e.g.:

(24) Zasedanie sostoitsja čerez čas.
'The meeting will occur in an hour.'

(25) Obmolvka sostoitsja čerez čas.
'The slip of the tongue will occur in an hour.'

However, clausal nominals cannot co-occur with such predicates, cf.

(26) *To, čto zasedajut, sostoitsja čerez čas.

(27) *To, čto pticy čirikajut, načnetsja čerez čas.

nor can infinitives:

(28) *Čitat' gazety načnetsja čerez čas.

It is interesting to note that verbal nouns do not co-occur with some non-factive predicates, cf.

(29) *Ja dumaju čirikan'e ptic.

while clausal nominals do co-occur with these predicates:

(30) Ja dumaju, čto pticy čirikajut.
'I think that birds chirp.'

Dumat' does not allow any noun proper (i.e. derived nominal or object-noun) to occur as its direct object, but it can be argued that this is a consequence of its being a non-factive predicate, rather than just chance. Cf. however, the following sentences:

(31) Ja znaju čirikan'e ptic.
'I know the chirping of birds.'

(32) Ja znaju, čto pticy čirikajut.
'I know that birds chirp.'

which are not synonymous. In (31) znat' has the sense of "know" as being familiar with, i.e., being able to recognize the action of chirping of the birds, while in (32) it has the non-factive sense, i.e., the assertion that the speaker is aware that birds chirp, without presupposing the truth of the proposition that birds chirp. However, with other non-factive predicates the situation is not so clear, e.g., both the following sentences were characterised as possibly acceptable by informants:

(33) ?Čirikan'e ptic - verojatno.
'The chirping of the birds is probable.'

(34) ?To, čto pticy čirikajut - verojatno.
'That birds chirp is probable.'

Thus there is some evidence to suggest that there is a need to distinguish an eventive parameter within a description of nominalization in Russian. Whereas the examples (14) - (18) indicate that verbal nouns can co-occur with the same predicates as object-nouns, the data of (19) - (28) indicates that the class of predicates that includes načinat'sja, sostojat'sja, etc. must be specified as co-occuring only with eventive nominals while the evidence of (29) - (32) indicates that some predicates co-occur only with propositional nominals.

This evidence does not by itself provide strong justification for the hypothesis we are considering. The argument would be strengthened if the proposal that the grammar should be able to distinguish between propositional

sentences and eventive sentences could be shown to facilitate the description of other phenomena within the language. Some evidence for this is provided by a description of Manner Adverbials.

Lakoff (1970: pp. 156 - 167) proposes that Manner Adverbials be derived from underlying predicates, where the (Surface Structure) Main Clause is embedded in the Predicate Phrase; thus, the underlying structure of (34):

(33) Ivan zabavno napisal pis'mo.
'Ivan amusingly wrote a letter.'

would be

(34) $_{NP}$To $_{N}$(To $_{S}$(Ivan napisal pis'mo))$_{VP}$zabavno.

The advantages of such an analysis are that by removing the need to generate Manner Adverbials directly in the base as proposed by Chomsky (1965: pp. 102 - 106) it simplifies the Phrase Structure rules, and makes the notion of the predicate more general by extending it to include Manner Adverbials, which are derived from adjectival, rather than properly verbal, predicates by independently motivated processes of complementation.

Chomsky (1971: p.195, n.a) points out that Lakoff's analysis is weakened by the fact that the underlying structure (34) is itself ambiguous, with the possible readings:

(35) Ivan byl zabavnym v (toj) manere, v kotoroj on napisal pis'mo.
'Ivan was amusing in the way that he wrote the letter.'

(36) Ivan byl zabavnym v tom, čto on napisal pis'mo.
'Ivan was amusing in that he wrote the letter.'

However, Lakoff's analysis can be retained if the sentences that are embedded in the matrix sentence containing the predicate underlying the Manner Adverbial are characterised in terms of fact, action, event etc. as described above, and the predicate underlying the Manner Adverbial is specified for the type(s) of sentence that it can co-occur with.

Thus, the ambiguity of (35) and (36) as indicated in (37) and (38) would be resolved by the observation that in (37) Ivan's action of writing the letter was amusing, while in (38) the fact of Ivan's writing the letter was amusing. Thus, zabavno is a predicate which can co-occur both with eventive and propositional sentences. It would follow from this that (36) should underlie

(39) Zabavno, čto Ivan napisal pis'mo.
'It's amusing, that Ivan wrote a letter.'

where the propositional function is expressed and the clausal nominal occurs, and:

(40) ?Napisanie pis'ma Ivanom zabavno.
'Ivan's writing a letter is amusing.

where the eventive function and the verbal noun occur.

This proposal receives some support from the following. Cf:

(41) Ivan ostorožno napisal pis'mo.
'Ivan carefully wrote a letter.'

(42) *Ostorožno, čto Ivan napisal pis'mo.

(43) Napisanie pis'ma Ivanom bylo ostorožno.

That ostorožno cannot co-occur with the clausal nominal, but can with the verbal noun seems to indicate that some kind of

classification of Manner Adverbials such as that outlined above, is required.

## 3.4. A Residual Problem

As we discussed above, (pp. 22 - 23) Kiparsky and Kiparsky (1970) claim that a basic opposition in terms of the factivity or non-factivity of the sentence underlying the nominal determines the surface form of the nominal. In their work, they considered clausal nominals and the English gerundive nominal form, (POSS ING). Menzel claims that the Kiparskys' Factive - Non-Factive opposition should be subsumed under what we have referred to throughout this study as the propositional parameter that underlies propositional nominals, and that there is an eventive parameter that underlies derived nominals. It is this claim that we are examining with reference to Russian verbal nouns.

Menzel notes that events, etc. can be interpreted as facts, and accounts for this by stating:

> "as soon as an action has been performed, its performance becomes a fact and can therefore be presupposed to be true by the speaker who witnesses it." (Menzel, 1969: p. 69)

This we termed a fait accompli. Thus, factive predicates, (i.e. predicates that presuppose the truth of any proposition embedded on them), can co-occur with derived as well as clausal nominals. Cf.

(44) Čirikan'e ptic - značitel'no
'The birds' chirping is significant.'

(45) To, čto pticy čirikajut - značitel'no.
'That birds chirp is significant.'

What Menzel seems to be implying is that (44) can be interpreted as meaning that the event of the birds chirping is significant, and that it also can receive a factive interpretation, as a fait accompli; whereas (45) can only be given a factive interpretation.

Consider (46):

(46) Čirikan'e ptic razbudilo ego.
'The birds' chirping woke him up.'

In this sentence, the truth of the proposition that the birds were chirping is clearly presupposed; otherwise, how would they have ever have woken anyone up? If this is correct, it would weaken Menzel's claim that, in a grammatical analysis of nominalization, derived nominals, (including verbal nouns), have as their base forms eventive sentences, while clausal nominals have as their base forms propositional sentences. This is because factivity falls within the parameters of propositional sentences, so that, if a verbal noun is a factive as well as an eventive nominal, the distinction between eventive and propositional sentences loses validity,since both underlie verbal nouns.

Menzel's counter-argument of the fait accompli is inadequate in a case such as (45) because, while Menzel claims that faits accomplis occur only with factive predicates, it would be absurd to claim that any of the arguments of razbudilo could be exclusively factive - who could wake up, or be woken up by, a fact? Cf.

(47) ?Tot fakt, čto ja čitaju gazety, poleznaja dejatel'nost.

'The fact that I read newspapers is a useful activity.'

Informant responses to this sentence indicated not so much that the sentence is unacceptable, but rather that it is anomalous. Verbal nouns can refer to facts, as is demonstrated by the acceptability of:

(48) Čtenie gazet - nesomnennyj fakt.
'The reading of newspapers is an indubitable fact.'

However, the factivity of verbal nouns need not entail the invalidation of Menzel's claim. It is important not to confuse the Propositional (Factive - Non-Factive) parameter and the Eventive parameter. It should be remembered that Menzel is not proposing to include events etc.in the class of non-factive complements; they are an entirely separate class, where notions of truth value are irrelevant; as Menzel says, "Events are neither true or false, they simply occur" (ibid. p.81). It is perhaps more plausible to specify that factivity is part of the presuppositions of eventive nominals,that possibly it is only the eventive nature of the derived nominal that is included in its meaning. (For discussion of presuppositions, especially of the fact that they form part of the speaker's competence, see Lakoff (1971), also cf. the characterisation of the difference between meaning and presupposition given by McCawley (1968: p.141); or cf. Chomsky's (1971) distinction between Focus and Presupposition.)

## 3.5. Conclusions

In this chapter we have examined the data presented

in Chapter One in terms of the theoretical framework proposed by Menzel (1968), which was discussed in Chapter Two. It can be reiterated that only the basic principle of Menzel's thesis has been examined, i.e., his claim that eventive sentences underlie derived nominals (verbal nouns); there has been no discussion of how to formalize this claim in terms of transformational grammar.

The evidence we have adduced has not been very strong. We have seen that clausal nominals, which Menzel claims are derived from underlying propositional sentences, can co-occur with predicates containing nouns such as dejatel'nost', although informant responses to such sentences indicated some degree of deviance, (for this notion, see Chomsky, 1965, pp. 148 - 153). We have also seen that there is a small class of predicates that co-occur with derived nominals but not with clausal nominals or object nouns. On the basis of this evidence it seems possible to support Menzel's claim that the fact that eventive sentences underlie derived nominals is relevant in terms of grammatical description. We have also examined some evidence from an analysis of Manner Adverbials to support this.

In terms of the theoretical framework of Chomsky (1965), the co-occurrence restrictions referred to above would be formalized in terms of selectional features. Thus, a verb such as razbudit' would contain in its lexical specification features such as + [+EVENT]__, +[-PROP]__,

+ /[+OBJ]__. This specification predicts the acceptability of:

(49) Čirikan'e ptic razbudilo ego.
'The birds' chirping woke him up.'

(50) Mašina razbudila ego.
'The car woke him up.'

and the unacceptability of:

(51) *To, čto pticy čirikajut razbudilo ego.
*'It woke him up that birds chirp.'

The evidence presentedhere would suggest that the features referred to are "lower-level". Cf. Chomsky (op cit p. 150):

"It seems that sentences deviating from selectional ... rules that involve 'higher-level' lexical features ... are much less acceptable and are more difficult to interpret than those that involve ...'lower-level' features."

## Chapter Four: Verbal Nouns in Other Contexts

4.0. In this chapter we will survey the occurrences of verbal nouns in other contexts, and discuss some of the implications of these observations for the arguments presented in Chapter Three.

4.1.1. Verbal nouns occur in certain types of Adverbial expressions; e.g.

(1) Do vyrabotki standarta, oni polučali 100 rublej v mesjac.
'Before a standard rate was worked out, they earned 100 roubles a month.'

(2) Vo vremja podgotovki, oni žili v gostinice.
'During the training, they lived in a hotel.'

(3) Posle popravki, ix uže ne pytali.
'After the correction, they were no longer tortured.'

(4) Čast' sluxov rasprostranjalas' dlja našego ustrašenija.
'Some of the rumours were spread to frighten us.'

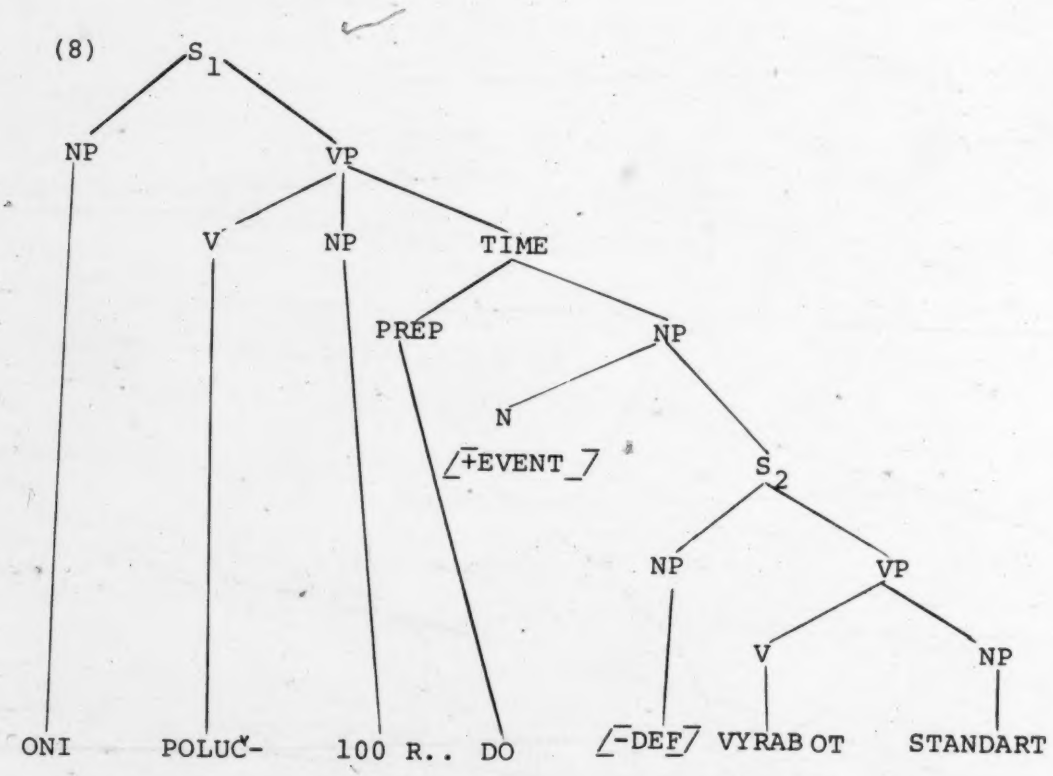
(5) Novye ego lapti ne uspeli potemnet' ot noski.
'His new shoes had still not had the time to turn dark from wear.'

(1) - (3) are Time Adverbials, (4) Purpose, and (5) Cause. A detailed analysis of these constructions is not possible here, but it can be pointed out that in all such sentences as (1) - (5) the prepositional phrase containing the verbal noun can be paraphrased by a sentence; cf.

(6) Do togo, kak vyrabotali standart, polučali 100 rublej v mesjac.

(7) Čast' sluxov rasprostranjalas' dlja togo, čtoby my ustrašilis'.

The deep structure of (1) would be:




It is obvious that $S_2$ in (8) is read as an event, since it is until the event of the working out of a standard rate that they earned 100 roubles a month. Note that the configuration $_{NP}$ /$\overline{N}$ S/ that underlies the verbal noun in (8) is precisely that postulated by Menzel for the deep structure of derived nominals: also, that <u>to</u> is the item that appears in the surface structure when the head noun is not deleted. Similar observations can be made about the other sentences(2) - (5); thus, in (4), the purpose of the spreading of the rumours was to achieve the state of being

frightened amongst "us".

The significance of the above data lies in the fact that it seems to indicate a context where clausal nominals and verbal nouns can paraphrase each other, which suggests a common derivational base for both constructions. This, of course, contradicts the main arguments of this study. However, first of all, it cannot be claimed solely on the basis of this evidence that the noun phrases in (6) and (7) that paraphrase the verbal nouns in (1) and (4) are clausal nominals in the sense that is used in this study. Secondly, the fact that they are part of prepositional phrases is possibly significant. However, these two questions cannot be elaborated further here; these examples, and those that follow, provide some idea of the complexity of the facts that have to be accounted for in a grammatical description of Russian Verbal Nouns.

4.1.2. Verbal nouns also occur as attributes of nouns, in sentences such as:

(9) V cerkovnyx kamerax šel obrjad privykanija.
'In the church cells the ritual of getting accustomed was under way.'

which can be paraphrased in the following way:

(10) V cerkovnyx kamerax šel obrjad, v xode kotorogo privykali.
'In the church cells was going on the ritual during which they got accustomed.'

Although this evidence immediately suggests that the verbal noun in (10) is derived from a relative clause, such an analysis is complicated by the problem of how to delete the prepositional phrase v xode in the nominalization and by the fact that complements are derived from the configuration $_{NP}/\bar{N}\ S_/$ rather than $_{NP}\ /\bar{NP}\ S_/$. Cf. (12),

(12) Poezd dal'nego sledovanija ...
'A long distance train ...'

where the Adverbial becomes an adjective, (i.e. daleko becomes dal'nij.). Consider also Noun Phrases such as:

(13) Muki rasstavanija ...
'The torments of parting ...'

(14) Dux izgnan'ja ...
'The spirit of exile ...';

there seems to be no way of deriving these phrases by means of Relative Clause reduction. For instance, in (14) the head noun dux is not related to the verbal noun in the same way as obrjad to privykanie in (9), i.e.it does not occur in any adverbial that qualifies the verb izgonjat'; nor does it occur as any of the arguments of izgonjat', being neither the subject or the object of the verb. Nevertheless, the verbal nouns in (9), and (12) - (14) do describe actions, events, etc. Thus, the ritual of getting used to things in (9) is a process or activity, while (12) describes the train's activity, in that it travels long distances; similarly, the

torments in (13) are caused by an event, namely parting, and the spirit of (14) is the spirit of a state, namely exile.

4.1.3. Verbal nouns also occur in periphrastic constructions where the verb is nominalized, becoming the direct object of an "empty" verb. For example:

(15) Ego smert' proizvela bol'šoe vpečatlenie na menja.
'His death made a big impression on me.'

Proizvesti vpečatlenie is a fixed expression with no paraphrases; there are,however, examples where the expression containing the verbal noun has a paraphrase using the verb corresponding to the verbal noun. Cf:

(16) Vrag budet okazyvat' soprotivlenie.
'The enemy will put up opposition.'

(17) Vrag budet soprotivljat'sja.
'The enemy will oppose.'

In such constructions, the verbal noun obviously describes the action described by the predicate.

There is a similar construction that utilises the verbal noun with a verb derived usually from the comparative degree of a Manner Adverbial that modifies the verb underlying the verbal noun; e.g.

(18) Oni ulučšili ispol'zovanie magnitofona.
'They improved the use of the tape-recorder.'

The verbs in these constructions are characterised by the inchoative prefix u-. Note that (18) is not synonymous to (19):

(19) Oni lučše ispol'zujut magnitofon.
'They use the tape-recorder better.'

the difference being that, while the subject of ispol'zovat'

in (19) is oni, the Deep Structure subject is indefinite ( -DEF ) in (18). For further discussion of these constructions, see Skoumalova (1968).

4.1.4. Verbal nouns are also found in the formation of compound nominals, such as zemletrjasenie 'earthquake', golovomojka 'telling-off'; in prepositional phrases such as vo izbežanie 'in avoidance of' and po otnošeniju k 'in relation to', and parenthetical expressions such as k sožaleniju 'unfortunately' and k sčast'ju 'fortunately'.

4.2. Verbal Nouns as Object Nouns

Strictly speaking, this class of verbal nouns does not occur in contexts different from verbal nouns occurring as Subject and Object, discussed above. In the literature, the occurrence of verbal nouns as object nouns has been defined as "secondary meanings" (see above, pp. 6 - 7 ). Recall that these secondary meanings include the result or end-product of an action, e.g. proizvedenie, 'work' (of art), izobretenie, 'invention'; the instrument, mechanism or installation by which an action is performed, e.g. sceplenie 'coupling', vykrojka 'pattern'; the object that undergoes an action, e.g. posylka 'parcel'; and the location at which an action is performed, e.g. selenie 'settlement', promyvka 'washing-plant'. One common denominator amongst all these nouns is that they refer to objects, and furthermore, these objects all owe their existence to the performance of the action denoted by theverb with which they are associated.

Observe that many of the generic terms used to denote large classes of objects are verbal nouns. Thus, the generic term that includes the class of all constructed objects is building (ing complementizer) in English, zdanie, postrojka, or stroenie in Russian, batiment in French; all composed objects are, generically, compositions in English, sočinenija in Russian.

These nouns also refer to the action described by their corresponding verb. Consider:

(20) Izobretenie avtomobilja povredilo čelovečestvu.
'The invention of the motor car harmed mankind.'

where izobretenie refers to the event of the invention of the motor car; or:

(21) Selenie dal'nego severa imelo bol'šoe vlijanie na ekonomičeskoe razvitie vsej strany.
'The settlement of the far north had a great influence on the economic development of the whole country.'

where it is the process of settlement, rather than any one settlement itself that influenced economic development. If we could account for these secondary meanings in a general way by extending our account of verbal nouns, it would both strengthen our hypothesis, and simplify the grammar by making it unnecessary to treat words like izobretenie both as separate lexical items and as derived nominals.

Vendler (1967: pp. 147 - 171) proposes an extension of the eventive parameter to include a class of effects, which includes the notions of product, work, creation etc. While

proper discussion of this issue is beyond the scope of this study, it is worthwhile to note that Vendler's suggestion is similar to Fillmore's Factitive Case (Fillmore, 1968: p.25) and the notion of 'implicational relationships' discussed in McCawley (1968: pp. 130 - 132). Also, see Lakoff (1970: p.31) and Chomsky (1970: p.217, n.11) for discussion of the rule of Object Nominalization.

## Summary and Conclusions

In the preceding pages we have reviewed the literature on nominalization in English from a Generative-Transformational viewpoint, and applied the analysis proposed by Menzel (1968) to Russian verbal nouns. Our analysis of verbal nouns has not been exhaustive; rather, we have attempted to determine whether Menzel's basic claim, that a derived nominal is derived from an underlying eventive sentence, is meaningful in theoretical terms.

The main conclusion stemming from this study is that, in a generative-transformational account of Russian verbal nouns, the observation that they do describe actions rather than express propositions seems to have some significance. That is, this observation should in some way be included in the grammatical description of Russian, possibly as a low-level selectional feature in the lexical specification of verbs, adjectives, and perhaps some nouns (such as obrjad, dux), and prepositions such as do, (do vyrabotki standarta).

This conclusion is based on evidence presented in 3.3., where it was shown that certain predicates, such as sostojat'sja 'occur', cannot co-occur with clausal nominals, while they can with verbal nouns. A brief discussion of manner adverbials provided some additional evidence that the ability to distinguish between underlying

propositional and eventive sentences is desirable in a grammar. Finally, based on the confused picture presented by examples in 3.2. and 3.4. of clausal nominals referring to events and verbal nouns referring to facts, it was concluded that the selectional restraints on verbal nouns were of the order of Chomsky's "lower-level" selectional features, (Chomsky, 1965: p.150.)

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